In the Specification

No new subject matter is being introduced in the specification. Elements previously disclosed in the drawings are being described in the specification. Such nature of such elements would have been clear to one of ordinary skill in the art.

Paragraph [0024] is replaced with the following:

[0024] The present invention advantageously includes a process for forming aromatic compounds from a hydrocarbon feed stream 34, as illustrated in FIG. 1. The process preferably includes supplying and reacting hydrocarbon feed stream 34 in a first reactor 12 to produce a first reactor effluent stream 52. Hydrocarbon feed stream 34 preferably includes a significant amount of hydrocarbons containing a range of five to ten carbon atoms and is preferably supplied at a temperature in the range of about 500°F to about 1200 °F and a pressure in the range of about 15 psig to about 100psig. Another preferred embodiment includes supplying the hydrocarbon feed stream at a temperature in the range of about 800 °F to about 1200 °F and a pressure in the range of about 15 psig to about 250 psig. More preferably, the boiling range of the hydrocarbon feed stream includes a range falling substantially between 80 °F to 400 °F. It is understood by those in the art that initial boiling points and end points can vary on otherwise similar hydrocarbon feed streams. First reactor effluent stream 52 is then cooled, preferably to a temperature in the range of about 250°F to about 400°F, and at least partially condensed in a first cooler 30 to produce a cooled effluent stream 54 which is then separated in a first separator 24 to produce a first vapor stream 56 and a first liquid stream 46. Cooling first reactor effluent stream 52 allows part of the high boiling aromatic compounds in first reactor effluent stream 52 to

condense resulting in first liquid stream 46 containing high boiling aromatic compounds. First vapor stream 56 is then preferably cooled and at least partially condensed in a second cooler 28 to produce a cooled first vapor stream 58 which is then separated in a second separator 26 to produce a second vapor stream 60 and a second liquid stream 48. Second liquid stream 48 includes the lower boiling aromatic compounds. First vapor stream 56 is preferably cooled to a temperature in a range of about 220 °F to about 360 °F. More preferably, first vapor stream 56 is cooled to a temperature in the range of 240 °F to about 360 °F . First and second liquid streams 46, 48, which contains high and low boiling liquid streams, are combined and cooled in third cooler 32 before being sent to a reformate pool for further processing as desired. Second vapor stream 60 is then heated, preferably to a temperature in the range of about 800°F to about 1200°F, prior to sending second vapor stream 60 to a second reactor 14.

Paragraph [0029] is replaced with the following:

[0029] As another embodiment of the present invention, the process can also include reacting second vapor stream 60 in second reactor 14 to produce a second reactor effluent stream 42, as illustrated in FIG. 2. Second reactor effluent stream 42 is cooled, preferably in a range of about 250 °F to about 400 °F, and at least partially condensed in a fourth cooler 64 and cooled in a third separator 66 to produce a third vapor stream 78 and a third liquid stream 74. Third vapor stream 78 is then cooled and at least partially condensed in a fifth cooler 70 to produce a cooled third vapor stream 82 which is then separated in a fourth separator 68 to produce a fourth vapor stream 80 and a fourth liquid stream 79. Third and fourth liquid streams 74, 79 are preferably combined and cooled in sixth cooler 72 prior to sending them to the reformate pool for further

processing. Fourth vapor stream 80 is heated prior to being sent to third reactor 16. Reformate 17 is produced from the third reactor or a final reactor. In a preferred embodiment, the reformate exchanges heat with incoming feed stream 34.

Paragraph [0032] is replaced with the following:

[0032] As another embodiment of the present invention, a process for forming aromatic compounds from a hydrocarbon stream is advantageously provided as illustrated in FIG. 3. In this embodiment, a hydrocarbon feed stream 34 is supplied and reacted in a first reactor 12 to produce a first reactor effluent stream 52, which is then cooled and at least partially condensed in a first cooler 30 to produce a cooled effluent stream 54' which is then separated in a first separator 24'. A first vapor stream 56 and a first liquid stream 46' are produced as a result of ~~the cooling and condensing~~ separating ~~of~~ the ~~first reactor~~cooled effluent stream 54'~~2~~. First vapor stream 56 is cooled and at least partially condensed in a second cooler 28 to produce a cooled first vapor stream 58 which is then separated in a second separator 26 to produce a second vapor stream 60 and a second liquid stream 48. The first and second liquid streams 46', 48 are then combined and cooled in a third cooler 32' prior to being sent to a reformate pool for further processing. Second vapor stream 60 is heated and then split with a first portion of second vapor stream 38 being sent to second reactor 14 and a second portion of second vapor stream 43 being sent to a third reactor 16. First portion of second vapor stream 38 is reacted in the second reactor to produce a second reactor effluent stream 42. Second reactor effluent stream 42 is preferably combined with first reactor effluent stream 52 prior to cooling and at least partially condensing

first reactor effluent stream 52 in first cooler 30'. Second reactor effluent stream 42 is cooled and at least partially condensed along with first reactor effluent stream 52.

Paragraph [0039] is replaced with the following:

[0039] Fourth cooler 64 is preferably used for cooling and at least partially condensing second reactor effluent stream 42 to produce a third vapor stream 78 and a third liquid stream 74. Fifth cooler 70 is preferably used for cooling and at least partially condensing third vapor stream 78 to produce a cooled third vapor stream 82 which is then separated in a fourth separator 68 to produce a fourth vapor stream 80 and a fourth liquid stream 79. Sixth cooler 72 is preferably used for cooling third and fourth liquid streams 74, 79. Second heater is preferably used for heating fourth vapor stream 80. Third reactor 16 for receiving the fourth vapor stream 80.